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COLORADO DEPARTMENT OF HEALTH
Dedicated to protecting and improving the health and environment of the people of Colorado

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4B313

June 2 1994

Mr Richard J Schassburger
U S Department of Energy
Rocky Flats Office Building 116
P O Box 928
Golden Colorado 80402 0928

RE Work Plan for Chemically Enhanced Steam Stripping

Dear Mr Schassburger

The Colorado Department of Health Hazardous Materials and Waste Management Division (the Division) has reviewed the above referenced document and is approving the Work Plan under the condition that the following comments will be adequately addressed prior to implementation of work

General Comments

It is not clear how this Work Plan will take advantage of a decade of soil characterization and bench scale attrition scrubbing studies performed at RFP on RFP 903 Pad Area soils The Division is particularly interested in using results obtained during the LANL *Batch Experiments for Desorption of Plutonium and Americium in Contaminated Soil from the Rocky Flats Plant* study (Triay and Loge) This study has provided a directly applicable screen of chelating/redox agent systems However not all of the promising combinations show up in the test matrix of Section 4 of the Work Plan

How Tables 4-4 and 4-5 fit into the test plan is confusing Under Section 4 2 1 Batch Desorption Experiments, the text does not explain which matrix will be run, or if both will be run, and the rationale for presenting two different matrices in the first place Table 4-5 appears to come from the Triay and Loge work the basis for Table 4-4 is not documented It is also not obvious why water is chosen as an agent

The bottom line is that the Work Plan must fully utilize what appears to be extensive previous work and needs to revise the Work Plan sections that summarize this information, its applicability and how it will be used for this treatability study Of primary importance is the link between the previous studies and how they feed into the design of this test plan

Specific Comments

1) Section 4 2 1 Why is the soil to solution ratio (1 10) different than that of previous work? What are the expected implications in decreasing the ratio?

2) Section 6 0 Selection of the soil size fraction seems to be of more importance than just a passing thought The LANL work used a particle size of less than 53 microns Results from previous RFP soil separation studies have indicated a strong correlation between actinide activity and soil particle size The selection of the size fraction must be based on these considerations not on experimental logistics or sampling reproducibility

A-OU-1-000162

If you have any questions regarding these matters please call Dave Norbury of my staff at 692 3415

Sincerely

Gary W Baughman Chief
Facilities Section
Hazardous Waste Control Program

cc Arturo Duran EPA
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